



# Masonry Technical Bulletin

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**Is there a specification for adhered artificial cast stone veneer? How do you fasten the veneer to the exterior of the building when the size of the veneer is larger and/or heavier than the maximum permitted in Building Code Requirements for Masonry Structures (TMS 402-**



**08/ACI 530-08/ASCE 5-08), Section 6.3.2.1, which reads..."Adhered veneer units shall not exceed 2 5/8 inches in specified thickness, 36 inches in any face dimension nor more than 5sq ft. in total face area and shall not weigh more than 15 lb per sq. ft. There are also limitations on wall areas, and backing. The adhesion developed between adhered veneer units and backing shall have a shear strength of at least 50 psi based on gross unit surface area...."**

Most engineers locally have used this TMS prescriptive section on most projects in Hawaii. There is however an alternative

design which is permitted under TMS 402, Section 6.3.2 provided they satisfy the following provisions (1) load should be distributed through the veneer to the backing using principles of mechanics, (2) out of plane curvature should be limited to prevent veneer separation from the backing, (3) all masonry other than veneer shall comply with reinforced masonry design provisions, (4) the veneer is not subject to the flexural tensile stress provision for the unreinforced masonry or the nominal flexural tensile strength provisions of reinforced masonry.

-IBC 2006 Section 1404.1 reads "Materials used for construction of exterior walls shall comply with the provisions of this section. Materials not prescribed herein shall be permitted, provided that any such alternative has been approved." IBC Section 1405 lists the different veneers that are commonly used on the exterior of building structures.

What this means is that you could use a specialized mortar mix or paste without the use of mechanical fasteners or ties provided that the engineer or architect and the building official approve the process and product.:-